



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**EXAMINER:** 

Sean E. Vincent

ART UNIT:

1731

PATENT NO.:

6,851,280

ISSUE DATE:

February 8, 2005

SERIAL NO .:

09/823,937

FILING DATE:

March 30, 2001

INVENTORS:

Franz OTT, Otmar BECKER, and Karin

NAUMANN

TITLE:

METHOD OF MAKING A HALOGEN LAMP AND OTHER

ANALOGOUS LAMPS AND OBJECTS, AND

APPARATUS FOR THE MANUFACTURE THEREOF

Greensburg, Pennsylvania 15601

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

August 8, 2005

ATTENTION: CERTIFICATE OF CORRECTIONS BRANCH

## TRANSMITTAL LETTER

Sir:

Please find enclosed herewith the following document relating to the above-cited case:

- a Request for Certificate of Correction of U.S. Patent and Trademark Office Mistakes Under 37 C.F.R. §1.322(b), having 21 pages; and
- 2) a stamped, self-addressed postcard, return of which is requested to acknowledge receipt of the enclosed document.

It is believed that no fee is required to file the enclosed document.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on <u>August 8, 2005</u>.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 8, 2005.

Signature

Vivian W. Toohey

Name of person mailing paper or fee

August 8, 2005

Date



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**EXAMINER:** 

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August 8, 2005

ATTENTION: CERTIFICATE OF CORRECTIONS BRANCH

REQUEST FOR CERTIFICATE OF CORRECTION OF U.S. PATENT AND TRADEMARK OFFICE MISTAKES UNDER 37 C.F.R. §1.322(b)

Sir:

It appears that when the above-cited case was printed as a patent by the U.S. Patent and Trademark Office printer, the errors listed below occurred in the printing.

By way of explanation, it is respectfully submitted that in the printing of the above-cited patent, the issued Claims 1-19 were taken

from Applicant's Amendment dated September 2, 2003 (Claims 21-39). A Notice of Allowance dated October 1, 2003 was issued by the U.S. Patent and Trademark Office. However, after receiving the Notice of Allowance dated October 1, 2003, Applicant filed a Request for Continued Examination and Amendment dated December 16, 2003 with the U.S. Patent and Trademark Office. Applicant then filed another Amendment dated July 12, 2004, which cancelled all the previous claims on file (namely Claims 1-59), and added new Claims 60-79. A second Notice of Allowance dated September 23, 2004 was received from the U.S. Patent and Trademark Office, enclosing a Notice of Allowability stating that the allowed claims were Claims 60-79.

A representative of the undersigned spoke to Ms. Cecilia Newman, a supervisor at the Certificate of Corrections branch of the U.S. Patent and Trademark Office on March 2, 2005. Ms. Newman reviewed the file on the above-cited case and stated that after reviewing the index of claims, the Claims 60-79 were indicated as being allowed and renumbered consecutively as Claims 1-20, which claims should have been printed on the above-cited patent.

Further, Ms. Newman explained that we had two options in order to have the above-cited patent corrected. We could either file a

Request for Certificate of Correction under C.F.R. 1.322(a) to obtain a Certificate of Correction, or a Request for Certificate of Correction under C.F.R. 1.322(b) to have the patent reprinted. After reviewing the allowed Claims 60-79 with the claims 1-19 printed on the patent, Applicant has determined that a Request for Certificate of Correction under C.F.R. 1.322(b) to have the patent reprinted would be appropriate as the allowed claims are of significantly different scope than the printed claims. Applicant therefore requests that the above-cited patent be reprinted by the U.S. Patent and Trademark Office, with the following errors corrected.

Therefore, it is respectfully requested that the following errors on the printed patent be corrected.

On the Title Page, Column 2, after the Abstract, delete "19 Claims" and insert -- 20 Claims --.

Delete all of the claims as printed, that is, from Line 38 of Column 21 (beginning with "1. In a...") through the last line of Column 24 ("ponents in conventional quantities.", and insert the following new set of claims renumbered as Claims 1-20:

-- 1. A method of making a halogen lamp by hot forming, said

method comprising the steps of:

- (a) producing a melt of molten glass;
- (b) passing said molten glass along a tool to form a glass body having an interior and an exterior;
- (c) selecting a gas having an oxygen content selected to treat a portion of a glass material of said halogen lamp from an interior surface of said halogen lamp to a desired depth from said interior surface sufficient to decrease darkening by tungsten deposition on said interior surface of said treated portion of said glass material during operation of said halogen lamp;
- (d) providing a stream of said gas to contact a portion of said interior of said glass body;
- (e) inserting a filament in said glass body to produce said halogen lamp; and
- (f) injecting halogen gas into said glass body to produce said halogen lamp.
- 2. The method according to Claim 1, wherein said desired depth of step (c) is in the range of 150nm to 2000nm from said interior surface.
  - 3. The method according to Claim 2, wherein at least one of (i)

and (ii):

(i) said step of passing said molten glass along a tool to form a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy.

4. The method according to Claim 3, wherein:

said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

up to 80 vol.%; and

10 to 30 vol.%;

said step of providing a stream of gas comprises providing a stream of gas containing at least one additional gas in addition to oxygen in a predetermined amount, said at least one additional gas being from the group consisting of nitrogen, inert gases,  $CO_2$ ,  $SO_2$ , and  $H_2O$ ; and

at least one of (A), (B), (C), and (D):

- (A) said glass melt has a viscosity in the range of  $10^4$  to  $10^5$  dPas;
- (B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;
- (C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;
- (D) said glass melt has one of the following compositions
  (Da) and (Db) (in wt.% on an oxide basis):

| (Da) SiO <sub>2</sub>          | 40-75 |
|--------------------------------|-------|
| Al <sub>2</sub> O <sub>3</sub> | 10-27 |
| B <sub>2</sub> O <sub>3</sub>  | 0-15  |
| MgO                            | 0-10  |
| CaO                            | 0-12  |
| SrO                            | 0-12  |

| ВаО                           | 0-30  |
|-------------------------------|-------|
| ZnO                           | 0-10  |
| ZrO <sub>2</sub>              | 0-5   |
| $Li_2O + Na_2O + K_2O$        | 0-7   |
| TiO <sub>2</sub>              | 0-5.5 |
| P <sub>2</sub> O <sub>5</sub> | 0-9.0 |

as well as optional fining agents and coloring components in conventional quantities;

| (Db) SiO <sub>2</sub>                                    | 60-80 |
|--|-------|
| Al <sub>2</sub> O <sub>3</sub>                           | 2-10  |
| $B_2O_3$   | 5-20  |
| MgO  | 0-8   |
| CaO  | 0-12  |
| SrO  | 0-8   |
| ВаО  | 0-12  |
| ZnO  | 0-10  |
| ZrO <sub>2</sub>   | 0-5   |
| Li <sub>2</sub> O + Na <sub>2</sub> O + K <sub>2</sub> O | 2-12  |

as well as optional fining agents and coloring components in conventional quantities.

- 5. The halogen lamp made according to the method of Claim 1.
- 6. A method of making a finished glass object, comprising one of: lamp bulbs, ampoules, bottles, vials, cylinder ampoules, pharmaceutical primary packaging, containers for medical and pharmaceutical products, reagent containers, test tubes, burets, pipettes, titration cylinders, tubular parts for chemical equipment construction, and flat glass, by hot forming, said method comprising the steps of:
  - (a) producing a melt of molten glass;
  - (b) forming a glass body;
- (c) selecting a gas having an oxygen content of one of: >0 to 20 vol.% and 22 to 100 vol.%, wherein said oxygen content is selected to decrease alkali ions, in a portion of a glass material of said finished glass object, from an exposed surface of said finished glass object to a desired depth of between 150nm to 2000nm from said exposed surface to decrease reactivity of said portion of said glass material to the desired depth from said exposed surface;
- (d) providing a stream of said gas to contact a portion of a surface of said glass body; and
  - (e) finishing said glass body to form said finished glass object.

- 7. The method according to Claim 6, wherein at least one of (i) and (ii):
- (i) said step of forming a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinum-

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy.

8. The method according to Claim 7, wherein:

said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

22 to 80 vol.%; and

10 to 20 vol.%;

said step of providing a stream of gas comprises providing a stream of gas containing at least one additional gas in addition to oxygen in a predetermined amount, said at least one additional gas being from the group consisting of nitrogen, inert gases,  $CO_2$ ,  $SO_2$ , and  $H_2O$ ; and

at least one of (A), (B), (C), and (D):

- (A) said glass melt has a viscosity in the range of 10⁴ to 10⁵ dPas:
- (B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;
- (C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;
- (D) said glass melt has one of the following compositions
  (Da) and (Db) (in wt.% on an oxide basis):

| (Da) SiO <sub>2</sub>          | 40-75 |
|--------------------------------|-------|
| Al <sub>2</sub> O <sub>3</sub> | 10-27 |
| $B_2O_3$                       | 0-15  |
| MgO                            | 0-10  |
| CaO                            | 0-12  |
| SrO                            | 0-12  |

| ВаО  | 0-30  |
|--|-------|
| ZnO  | 0-10  |
| ZrO <sub>2</sub>   | 0-5   |
| Li <sub>2</sub> O + Na <sub>2</sub> O + K <sub>2</sub> O | 0-7   |
| TiO <sub>2</sub>   | 0-5.5 |
| P <sub>2</sub> O <sub>5</sub>                            | 0-9.0 |

as well as optional fining agents and coloring components in conventional quantities;

| (Db) SiO <sub>2</sub>                                    | 60-80 |
|--|-------|
| $Al_2O_3$  | 2-10  |
| $B_2O_3$   | 5-20  |
| MgO  | 0-8   |
| CaO  | 0-12  |
| SrO  | 0-8   |
| ВаО  | 0-12  |
| ZnO  | 0-10  |
| ZrO <sub>2</sub>   | 0-5   |
| Li <sub>2</sub> O + Na <sub>2</sub> O + K <sub>2</sub> O | 2-12  |

as well as optional fining agents and coloring components in conventional quantities.

- 9. The finished glass object made according to the method of Claim 6.
- 10. A method of making a finished glass object, comprising one of: lamp bulbs, ampoules, bottles, vials, cylinder ampoules, pharmaceutical primary packaging, containers for medical and pharmaceutical products, reagent containers, test tubes, burets, pipettes, titration cylinders, and tubular parts for chemical equipment construction, by hot forming, said method comprising the steps of:
  - (a) producing a melt of molten glass;
  - (b) forming a glass body;
- (c) selecting a gas having an oxygen content selected to decrease alkali ions, in a portion of a glass material of said finished glass object, from an exposed surface of said finished glass object to a desired depth from said exposed surface sufficient to decrease reactivity of said portion of said glass material to the desired depth from said exposed surface;
- (d) providing a stream of said gas to contact a portion of a surface of said glass body; and
  - (e) finishing said glass body to form said finished glass object.
  - 11. The method according to Claim 10, wherein at least one of

## (i) and (ii):

(i) said step of forming a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy.

- 12. The method according to Claim 11, wherein said desired depth of step (c) is in the range of 150nm to 2000nm from said exposed surface.
- 13. The method according to Claim 12, wherein said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

up to 80 vol.%; and 10 to 30 vol.%.

14. The method according to Claim 13, wherein:

said step of providing a stream of gas comprises providing a stream of gas containing at least one additional gas in addition to oxygen in a predetermined amount, said at least one additional gas being from the group consisting of nitrogen, inert gases,  $CO_2$ ,  $SO_2$ , and  $H_2O_1$ ; and

wherein at least one of (A), (B), (C), and (D):

- (A) said glass melt has a viscosity in the range of 10⁴ to 10⁵ dPas;
- (B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;
- (C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;
- (D) said glass melt has one of the following compositions
  (Da) and (Db) (in wt.% on an oxide basis):

| (Da) SiO <sub>2</sub> | 40-75 |
|-----------------------|-------|
| $Al_2O_3$             | 10-27 |
| $B_2O_3$              | 0-15  |

| MgO  | 0-10  |
|--|-------|
| CaO  | 0-12  |
| SrO  | 0-12  |
| ВаО  | 0-30  |
| ZnO  | 0-10  |
| ZrO <sub>2</sub>   | 0-5   |
| Li <sub>2</sub> O + Na <sub>2</sub> O + K <sub>2</sub> O | 0-7   |
| TiO <sub>2</sub>   | 0-5.5 |
| $P_2O_5$   | 0-9.0 |

as well as optional fining agents and coloring components in conventional quantities;

| (Db) SiO <sub>2</sub> | 60-80 |
|-----------------------|-------|
| $Al_2O_3$             | 2-10  |
| $B_2O_3$              | 5-20  |
| MgO                   | 0-8   |
| CaO                   | 0-12  |
| SrO                   | 0-8   |
| ВаО                   | 0-12  |
| ZnO                   | 0-10  |
| ZrO <sub>2</sub>      | 0-5   |

 $Li_2O + Na_2O + K_2O$  2-12

as well as optional fining agents and coloring components in conventional quantities.

- 15. The glass object made according to the method of Claim 10.
- 16. A method of making a finished glass object comprising flat glass, by hot forming, said method comprising the steps of:
  - (a) producing a melt of molten glass;
  - (b) forming a glass body;
- (c) selecting a gas consisting of at least one member of the group consisting of: oxygen, nitrogen, inert gases, CO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>O, and having an oxygen content selected to treat a portion of a glass material of said finished glass object, from an exposed surface of said finished glass object to a desired depth from said exposed surface sufficient to decrease reactivity of said portion of said glass material to the desired depth from said exposed surface; and
- (d) providing a stream of said gas to contact a portion of a surface of said glass body.
- 17. The method according to Claim 16, wherein said desired depth of step (c) is in the range of 150nm to 2000nm from said exposed surface.

- 18. The method according to Claim 17, wherein at least one of (i) and (ii):
- (i) said step of forming a glass body comprises passing said molten glass along a tool which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy; and

(ii) said step of providing a stream of said gas comprises providing a stream of said gas through a guide structure which is configured to withstand a temperature of more than 1000°C, and which is one of:

coated at least partly with platinum or a platinumcontaining alloy; and

made of platinum or a platinum-containing alloy.

19. The method according to Claim 18, wherein:

said step of providing a stream of gas comprises providing a stream of gas having an oxygen content in the range of one of:

up to 80 vol.%; and

10 to 30 vol.%; and

at least one of (A), (B), (C), and (D):

- (A) said glass melt has a viscosity in the range of 10<sup>4</sup> to 10<sup>5</sup> dPas:
- (B) said glass melt has a temperature of more than one of: 1000°C and 1200°C;
- (C) said glass melt is one of: a borosilicate glass melt, a neutral glass melt, and an aluminosilicate glass melt;
  - (D) said glass melt has one of the following compositions
    (Da) and (Db) (in wt.% on an oxide basis):

| (Da) SiO <sub>2</sub>                                    | 40-75 |
|--|-------|
| Al <sub>2</sub> O <sub>3</sub>                           | 10-27 |
| $B_2O_3$   | 0-15  |
| MgO  | 0-10  |
| CaO  | 0-12  |
| SrO  | 0-12  |
| ВаО  | 0-30  |
| ZnO  | 0-10  |
| ZrO <sub>2</sub>   | 0-5   |
| Li <sub>2</sub> O + Na <sub>2</sub> O + K <sub>2</sub> O | 0-7   |
| TiO <sub>2</sub>   | 0-5.5 |

 $P_2O_5$ 

0-9.0

as well as optional fining agents and coloring components in conventional quantities;

| (Db) SiO <sub>2</sub>                                    | 60-80 |
|--|-------|
| Al <sub>2</sub> O <sub>3</sub>                           | 2-10  |
| $B_2O_3$   | 5-20  |
| MgO  | 0-8   |
| CaO  | 0-12  |
| SrO  | 0-8   |
| ВаО  | 0-12  |
| ZnO  | 0-10  |
| ZrO <sub>2</sub>   | 0-5   |
| Li <sub>2</sub> O + Na <sub>2</sub> O + K <sub>2</sub> O | 2-12  |

as well as optional fining agents and coloring components in conventional quantities.

20. The glass object made according to the method of Claim 16. --

It is respectfully submitted that the claims listed above and renumbered as Claims 1-20 are identical in content to Claims 60-79 in

Applicant's Amendment dated July 12, 2004, which claims have been considered allowed by the Examiner.

Applicant believes that the mistakes noted hereinabove are such that a certificate of correction is deemed inappropriate in form because of the substantial differences in scope between the printed claims and the allowed claims. Therefore, it is respectfully requested that the Director issue a corrected patent in lieu thereof as a more appropriate form for certificate of correction, without expense to the patentee.

Since the mistakes noted above have been made by the U.S. Patent and Trademark Office, it is believed that no fee is required to file this Request. It is respectfully requested that a reprinted patent be issued in the above-cited case correcting these errors at an early date.

If mailed, I, the person signing this certification below, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Box 1450, Alexandria, VA 22313-1450, on the date indicated in the certification of mailing on the transmittal letter sent herewith, or if facsimile

transmitted, I, the person signing this certification below, hereby certify that this paper is being facsimile transmitted to the United States Patent and Trademark Office on the date indicated in the certification of facsimile transmission on the transmittal letter which is being facsimile transmitted herewith.

Respectfully submitted,

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